Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

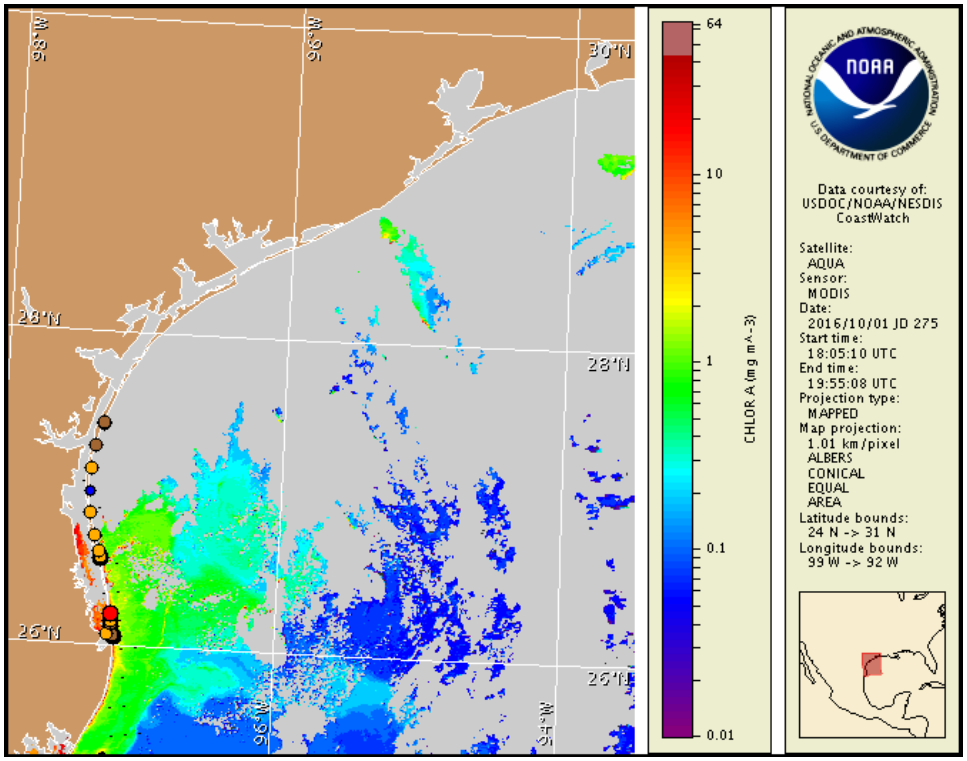
Monday, 03 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 29, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 23 to 30: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

---

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast in the Padre Island National Seashore to Rio Grande regions. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, October 3 through Thursday, October 6 is listed below:

County Region: Forecast (Duration)
Padre Island National Seashore region: Moderate (M-Th)
Mansfield Pass to Beach Access 6 region: Moderate (M-Th)
Beach Access 6 to Rio Grande region: Moderate (M-Th)
Bay region-Lower Laguna Madre to Laguna Vista: Moderate (M-Th)
All Other Texas Regions: None expected (M-Th)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past few days, reports of dead fish and respiratory irritation have been received from the Padre Island National Seashore and Beach Access 6 to the Rio Grande regions.

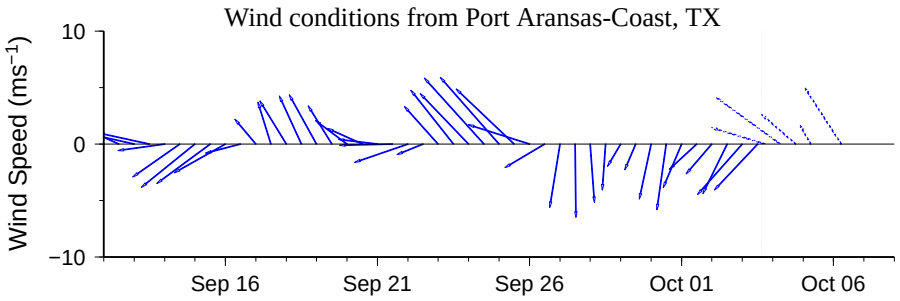
Analysis

Karenia brevis concentrations range between 'not present' and 'high' along the Texas coast from Aransas Pass to the Rio Grande (TPWD; 9/23-10/3). In the Aransas Pass to Padre Island National Seashore (PINS) region, sampling from the Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, indicates 'not present' to 'background' *K. brevis* concentrations (TAMU; 9/29-10/3). No new sample results have been received since last week, but the majority of impacts remain in the Mansfield Pass to Rio Grande region (TPWD; 10/3). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (10/1; shown left) is partially obscured by clouds from Sabine Pass to the PINS region, limiting analysis. Small patches of elevated to very high chlorophyll (2 to >20 μg/L) are visible along- and offshore from approximately PINS Mile Marker #40 to approximately 60 km south of the Rio Grande. Continued sampling in this area is recommended.

Forecast models based on predicted near-surface currents indicate a maximum transport of 40 km south from the Port Aransas region, 50 km south from PINS Mile Marker #15, and 70 km south from Brazos Santiago Pass from October 1-6.

Kavanaugh, Lalime

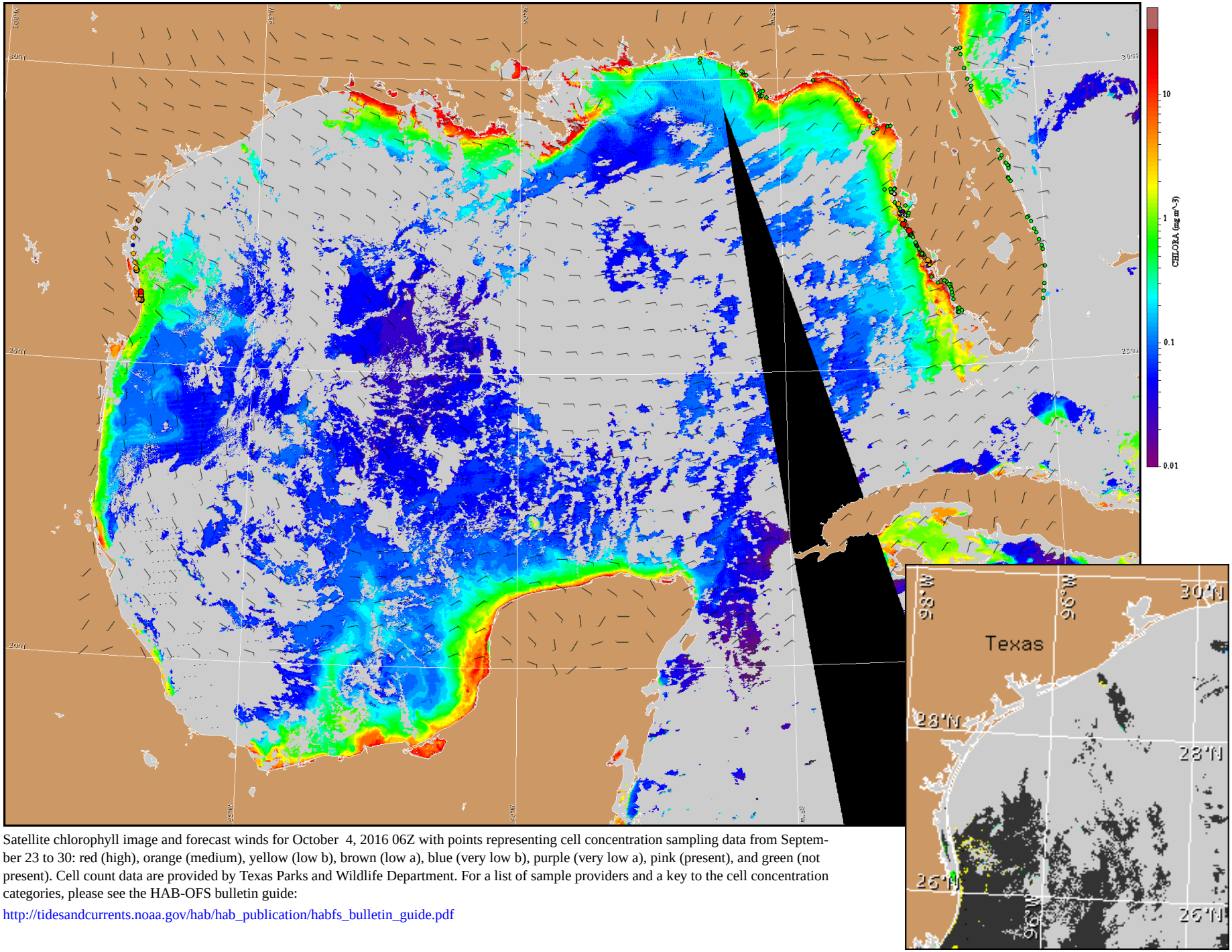


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Baffin Bay to Port Aransas: East winds (5-15kn, 3-8m/s) today becoming southeast winds (5-15kn, 3-8m/s) tonight through Thursday night .

Port Mansfield to Rio Grande: Light winds today becoming east winds (7-11kn, 4-6m/s) this afternoon. Southeast winds (7-14kn, 4-7m/s) tonight through Thursday night.



Satellite chlorophyll image and forecast winds for October 4, 2016 06Z with points representing cell concentration sampling data from September 23 to 30: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).